Title (en)
LASER DIODE AS INTERFEROMETER LASERBEAM SOURCE IN A LASER TRACKER

Title (de)
LASERDIODE ALS INTERFEROMETER-LASERSTRAHLQUELLE IN EINEM LASERTRACKER

Title (fr)
DIODE LASER COMME SOURCE DE RAYONNEMENT LASER D'INTERFÉROMÈTRE DANS UN APPAREIL DE SUIVI LASER

Publication
EP 2773980 B1 20190626 (DE)

Application
EP 12780746 A 20121102

Priority
- EP 11187614 A 20111103
- EP 2012071708 W 20121102
- EP 12780746 A 20121102

Abstract (en)
[origin: EP2589982A1] The tracker has a distance measurement unit designed as an interferometer (10) for determination of distance alteration to an object by interferometry. An interferometer laser beam source creates measuring radiation for the interferometer. The interferometer laser beam source is formed as a laser diode (20). The laser diode is formed such that measuring radiation is produced longitudinally in a defined emission wavelength and coherence length of 10m in a single-mode. The coherence length is assigned by the interferometer. The laser beam source is a superluminescent LED, a distributed feedback laser, a distributed Bragg reflector laser, a fiber Bragg grating laser, an external cavity diode laser, a diode pumped solid state laser, a discrete mode laser and a microchip laser. An independent claim is also included for a method for determination of distance alteration to an object.

IPC 8 full level
G01S 17/66 (2006.01); **G01B 5/004** (2006.01); **G01B 11/00** (2006.01); **G01C 15/00** (2006.01)

CPC (source: CN EP KR US)
G01B 5/004 (2013.01 - CN EP US); **G01B 11/00** (2013.01 - KR); **G01B 11/002** (2013.01 - CN EP US); **G01B 11/14** (2013.01 - US); **G01C 15/00** (2013.01 - KR); **G01C 15/002** (2013.01 - CN EP US); **G01S 17/66** (2013.01 - CN EP KR US)

Citation (examination)
DE 3528259 A1 19870219 - FERCHER ADOLF FRIEDRICH PROF D

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2589982 A1 20130508; CN 103930796 A 20140716; CN 103930796 B 20180202; EP 2773980 A1 20140910; EP 2773980 B1 20190626; JP 2015501437 A 20150115; KR 101629760 B1 20160613; KR 20140085507 A 20140707; US 2014307264 A1 20141016; US 9400175 B2 20160726; WO 2013064625 A1 20130510

DOCDB simple family (application)
EP 11187614 A 20111103; CN 201280053691 A 20121102; EP 12780746 A 20121102; EP 2012071708 W 20121102; JP 2014540405 A 20121102; KR 20147012835 A 20121102; US 201214356119 A 20121102